UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/083,876	02/27/2002	Kenneth Riordan	CS11457	4745

			EXAMINER
20280	7590	07/27/2005	DUONG, OANH L

MOTOROLA INC
600 NORTH US HIGHWAY 45
ROOM AS437
LIBERTYVILLE, IL 60048-5343

ART UNIT	PAPER NUMBER
2155	

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
	10/083,876	RIORDAN, KENNETH
Office Action Summary	Examiner	Art Unit	
	Oanh Duong	2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>03</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>27 February 2002</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>27 February 2002</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All   b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>02/27/2002</u>.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____ .

DETAILED ACTION

1.   Claims 1-19 are presented for examination.

Specification Objection.

2.   The disclosure is objected to because the summary of the invention is missing.

> Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary
> or general statement of the invention as set forth in 37 CFR 1.73. The
> summary is separate and distinct from the abstract and is directed toward
> the invention rather than the disclosure as a whole. The summary may
> point out the advantages of the invention or how it solves problems
> previously existent in the prior art (and preferably indicated in the
> Background of the Invention). In chemical cases it should point out in
> general terms the utility of the invention. If possible, the nature and gist of
> the invention or the inventive concept should be set forth. Objects of the
> invention should be treated briefly and only to the extent that they
> contribute to an understanding of the invention.

Claim Objections

3.   Claims 2-8, 10-19 are objected to because of the following informalities:

Claim 18 recites the limitation "the public key" in 18. There is insufficient

antecedent basis for this limitation in the claim.

Claims 2-8, 10-17 and 19 should include "comprising" in preamble.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the
United States before the invention thereof by the applicant for patent, or on an international application
by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this
title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act

of 1999 (AIPA) and the Intellectual Property and High Technology Technical

Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting

directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior

to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3.   Claims 1-4 are rejected under 35 U.S.C. 102(e) as being anticipated by Tanaka

et al. (Tanaka) (US 6,671,509 B1).

Regarding claim 1, Tanaka teaches a network software downloading method

(Fig. 3), comprising:

communicating terminal unique information for the downloading of common

software content from the network to a plurality of terminals in the network on

corresponding dedicated communication channels for each terminal (i.e., designating

of downloading channel is transmitted from the base station to the requesting mobile

station(s) using a slow associated control channel, col. 14 lines 26-44)

transferring the common software content from the network to the plurality of

terminals on a shared communication channel (i.e., transmits these system software

through the broadcast channel, col. 8 lines 20-22):

Regarding claim 2, Tanaka teaches the method of claim 1

receiving a request for the common software content from a plurality of terminals

on corresponding dedicated communication channels for each terminal (i.e., the base

station waits for a download request from the mobile station, col. 7 lines 31-32);

transmitting the common software content from the network to the plurality of

terminals making the request on the shared communication channel after receiving the

request (i.e., transmit these software through broadcast channel, col. 8 lines 22-23);

receiving confirmation from each of the plurality of terminals that received the

software content on corresponding dedicated communication channels for each

terminal after transmitting (i.e., the base station receives a download completion notice

from the mobile station, col. 7 lines 47-49).

Regarding claim 3, Tanaka teaches sending a message to a plurality of terminals

on corresponding dedicated communication channels to receive the common software

content on a shared channel (i.e., a traffic channel used to transferred primarily user

information, col. 8 lines 16-17).

Regarding claim 4, Tanaka teaches the method of claim 1, receiving confirmation from each of the plurality of terminals that received the common software content on corresponding dedicated communication channels for each terminal after transmitting (i.e., receives a download completion notice, col. 7 lines 47-49).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 5 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka in view of Wiehler (US 6,850,915 B1).

Regarding claim 5, Tanaka teaches the method of claim 1,

transmitting the common software content from the network to the plurality of terminals on the shared communication channel (i.e., software items are transmitted from the base station though the broadcast channel, col. 8 lines 42-43).

Tanaka does not teach transmitting a digital signature from the network to a plurality of terminals over corresponding dedicated communication channels for each terminal; and transmitting the common software content from the network to the plurality of terminals after transmitting the digital signature.

Wiehler teaches transmitting a digital signature from the network to terminal(s) (i.e., provided with a digital signature, col. 5 lines 34-43), and transmitting the software from the network to the terminal(s) (i.e., user now can click the software object desired for download, col. 5 line 57-58).

It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to combine the teachings of Tanaka to include transmitting a digital to terminals and transmitting software from the network to the terminal(s) as taught by Wiehler because it would enhance the security of the system (Wiehler, col. 6 lines 17-19).

Regarding claim 18, Tanaka teaches a radio communication network software downloading method (Fig. 3), comprising:

transmitting the common software content from the network to the plurality of terminals on the shared communication channel (i.e., software items are transmitted from the base station though the broadcast channel, col. 8 lines 42-43).

Tanaka does not teach transmitting a digital signature from the network to a plurality of terminals over corresponding dedicated communication channels for each terminal; and transmitting the common software content from the network to the plurality of terminals after transmitting the digital signature.

Wiehler teaches transmitting a digital signature from the network to terminal(s) (i.e., provided with a digital signature, col. 5 lines 34-43), and then transmitting the

software from the network to the terminal(s) (i.e., user now can click the software

object desired for download, col. 5 line 57-58).

It would have been obvious to a person of ordinary skill in the art at the time of

the invention was made to combine the teachings of Tanaka to include transmitting a

digital to terminals and then transmitting software from the network to the terminal(s) as

taught by Wiehler because it would enhance the security of the system (Wiehler, col. 6

lines 17-19).

Regarding claim 19, Tanaka teaches the method of claim 18, receiving

confirmation from each of the plurality of terminals that received the software content

on corresponding dedicated communication channels for each terminal after

transmitting (i.e., receives a download completion notice, col. 7 lines 47-49).

5.   Claims 6, 7,9-10, 15 and 16 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Tanaka in view of Varanasi (US 6,219,341 B1).

Regarding claim 6, Tanaka teaches the method of claim 1,

multiplexing a plurality of different common software content on the shared

communication channel (i.e., supplying software from the base station to mobile

station(s) based on a time-division multiplex transmission scheme using a broadcast

channel, col. 8 lines 57-59).

Tanaka doe not explicitly teaches dynamically adjusting the plurality of different

common software content multiplexed on the shared communication channel.

Varanasi teaches spread spectrum signals may be dynamically allocated (Fig. 2

col. 6 line 11 and 21-25).

It would have been obvious to a person of ordinary skill in the art at the

time of the invention was made to combine the teaching of Tanaka to include the spread

spectrum signals may be dynamically allocated because it would improve the bandwidth

utilization of a channel so as t maximize the data throughput over the channel

(Varanasi, col. 1 lines 48-49).

Regarding claim 7, Tanaka teaches the method of claim 6,

Tanaka does not explicitly teaches dynamically adjusting the plurality of different

common software content in proportion to a changing number of the plurality of

terminals receiving the plurality of different common software content.

Varanasi teaches dynamically adjusting the plurality of different common

software content in proportion to a changing number of users (associated with

terminals) (Fig. 2, col. 6 11 and lines 21-25).

It would have been obvious to a person of ordinary skill in the art at the time of

the invention was made to combine the teachings of Tanaka to include dynamically

adjusting the plurality of different common software content in proportion to a changing

number of users as taught by Varanasi because it would improve bandwidth utilization

of a channel so as to maximize the data throughput over the channel (Varanasi, col. 1

lines 48-49).

Regarding claim 9, Tanaka teaches a radio communication network software

downloading method (see Fig. 3), comprising:

transmitting software content from a radio communication network to a plurality of

terminals in the network by multiplexing the software content on a shared

communication channel received by the plurality of terminals (i.e., supplying software

from the bass station to mobile station based on a time-division multiplex transmission

scheme using a broadcast channel, col. 8 lines 57-59).

Tanaka does not explicitly teach dynamically adjusting the software content

multiplexed on the shared communication channel.

Varanasi teaches spread spectrum signals may be dynamically allocated (Fig. 2

col. 6 line 11 and 21-25).

It would have been obvious to a person of ordinary skill in the art at the time of

the invention was made to combine the teaching of Tanaka to include the spread

spectrum signals may be dynamically allocated because it would improve the

bandwidth utilization of a channel so as to maximize the data throughput over the

channel (Varanasi, col. 1 lines 48-49).

Regarding claim 10, Tanaka-Varanasi teaches the method of claim 9,

Tanaka does not explicitly teach dynamically adjusting the software content

multiplexed on the shared communication channel from a radio device management

server in communication with the radio communication network.

Varanasi teaches spread spectrum signals may be dynamically allocated (Fig. 2

col. 6 line 11 and 21-25).

It would have been obvious to a person of ordinary skill in the art at the time of

the invention was made to combine the teaching of Tanaka to include the spread

spectrum signals may be dynamically allocated because it would improve the

bandwidth utilization of a channel so as t maximize the data throughput over the

channel (Varanasi, col. 1 lines 48-49).

Regarding claim 15, Tanaka-Varanasi teaches the method of claim 9,

Tanaka teaches the software content comprises a plurality of software files (i.e.,

plurality of system software items, col. 10 line 67-col. 15 line 1).

Tanaka-Varanasi does not explicitly teach dynamically adjusting the software

content multiplexed on the shared communication channel based upon at least one of

file size and a number of the plurality of terminals receiving the software files.

Varanasi teaches dynamically adjusting the plurality of different common

software content in proportion to a changing number of users (associated with

terminals) (Fig. 2, col. 6 -11 and lines 21-25).

It would have been obvious to a person of ordinary skill in the art at the time of

the invention was made to combine the teachings of Tanaka to include dynamically

adjusting the plurality of different common software content in proportion to a changing

number of users as taught by Varanasi because it would improve bandwidth utilization

of a channel so as to maximize the data throughput over the channel (Varanasi, col. 1

lines 48-49).

Regarding claim 16, Tanaka teaches the method of claim 9, receiving

confirmation from each of the plurality of terminals that received the software content on

corresponding dedicated communication channels for each terminal after transmitting

(i.e., receives a download completion notice, col. 7 lines 47-49).

6.   Claims 8 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Tanaka in view Varanasi in further view of Antal et al. (Antal) (US 2003/0110286 A1).

Regarding claim 8, the combination of Tanaka and Varanasi teaches the method

of claim 6.

The combination of Tanaka and Varanasi does not explicitly teach dynamically

adjusting the plurality of different common software content based on a priority factor.

Antal teaches different priorities of traffic are multiplexed onto a transmission

channel (page 3 paragraph 29 line 3-5).

It would have been obvious to a person of ordinary skill in the art at the time of

the invention was made to combine the teachings of Tanaka and Varanasi to include

multiplexing transmissions with different traffic priority levels as taught by Antal

because it would reduce transmission delay of the higher priority traffic (Antal,

paragraph 12 lines 2-3).

Regarding claim 17, Tanaka-Varanasi teaches the method of claim 9,

Tanaka-Varanasi does not explicitly teach fragmenting the software content

multiplexed on the shared channel by packetizing the software content.

Antal teaches transmitting data by segmenting a data packet (paragraph 12 line

3).

It would have been obvious to a person of ordinary skill in the art at the time of

the invention was made to combine the teachings of Tanaka-Varanasi to includes

segmenting a data packet as taught by Antal because it would enable the efficiency of

transmission to be improved by segmenting a data packet in such a way so as to

reduce transmission delay.

7.   Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka

in view of Varanasi in further view of Kobayashi et al. (Kobayashi) (US 4,694,453).

Regarding claim 11, Tanaka-Varanasi teaches the method of claim 9,

Tanaka teaches the software content comprises a plurality of different software

files (i.e., plurality of system software items, col. 10 line 67-col. 15 line 1).

Tanaka does not explicitly teach dynamically adjusting the software content

multiplexed on the shared communication channel by adjusting a transmission time of

each of the plurality of software files.

Varanasi teaches spread spectrum signals may be dynamically allocated (Fig. 2

col. 6 line 11 and 21-25). It would have been obvious to a person of ordinary skill in the

art at the time of the invention was made to combine the teaching of Tanaka to include

the spread spectrum signals may be dynamically allocated because it would improve

the bandwidth utilization of a channel so as to maximize the data throughput over the

channel (Varanasi, col. 1 lines 48-49).

Kobayashi teaches adjusting the timing of the signal transmission in time-division

multiplexing signal transmission (col. 3 lines 51). It would have been obvious to a

person of ordinary skill in the art at the time of the invention was made to combine the

teachings of Tanaka adjusting the timing of the signal transmission in time-division

multiplexing signal transmission as taught by Kobayashi because it would prevent

collision of signals from the sources (Kobayashi, col. 3 line 52).

8.   Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka

in view of Varanasi in further view of Oz et at. (Oz) (US 6,813,270 B1).

Regarding claim 12, Tanaka-Varanasi teaches the method of claim 9,

Tanaka teaches the software content comprises a plurality of different software files (i.e., plurality of system software items, col. 10 line 67-col. 15 line 1).

Tanaka-Varanasi does not explicitly teach dynamically adjusting the software content multiplexed in the shared communication channel by adjusting the number of times each of the plurality of files is transmitted.

Oz teaches changing a number of programs to be output to multiplexer (col. 4 lines 65-67).

It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to combine the teachings of Tanaka-Varanasi to include changing a number of programs to be output to multiplexer as taught by Oz because it would increase efficiency of the system in term of bandwidth constraint (Oz, col. 1 line 56).

9.   Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka in view of Varanasi in view of Oz in further view of Jennings et al. (Jennings) (US 2002/0099842 A1)

Regarding claims 13 and 14, Tanaka-Varanasi teaches the method of claim 9,

Tanaka teaches the software content comprises a plurality of software files (i.e., plurality of system software items, col. 10 line 67-col. 15 line 1).

Tanaka-Varanasi does not teach teaches dynamically adjusting the software content multiplexed on the shared communication channel by prioritizing the

transmission of software files that generate greater amounts of revenue relative to the

transmission of software files that generate lesser amounts of revenue.

Oz teaches assigning different priorities to different programs and performing

priority-based multiplexing (col. 5 lines 1-2).

It would have been obvious to a person of ordinary skill in the art at the time of

the invention was made to combine the teachings of Tanaka-Varanasi to include

assigning different priorities to different programs and performing priority-based

multiplexing as taught by Oz because it would increase efficiency of the system in term

of bandwidth constraint (Oz, col. 1 line 56).

Jennings teaches content that generate more revenue receive priority during
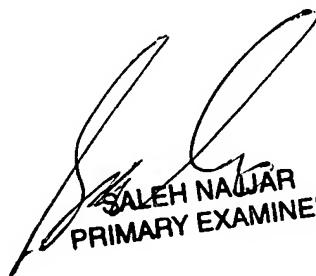
processing (paragraph 300 lines 12-13).

It would have been obvious to a person of ordinary skill in the art at the time of

the invention was made to combine the teachings of Tanaka-Varanasi to include

designating the content that generate more revenue receive priority during the

processing as taught by Jennings because it would allow the system to provide a high

quality to service to the user who costs more.

10.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Oanh Duong whose telephone number is (571) 272-

3983. The examiner can normally be reached on Monday- Friday, 2:00PM - 10:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571) 272-4006. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

O.D
July 17, 2005

SALEH NAJJAR
PRIMARY EXAMINER